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ABSTRACT

A study determined the relationship between life stress and reading comprehension test scores on the IOWA Tests of Basic Skills. Subjects, 41 middle-school students attending Lincoln School in Garwood, New Jersey, were surveyed as to the amount of life stress prevalent in their lives. In addition, the Iowa scores for reading comprehension were examined. Results indicated that life stress had a statistically significant, although minor, effect on students' reading comprehension test scores. (Contains 61 references and 2 tables of data; the survey instrument is attached.) (RS)

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Life Stress and Reading Comprehension Test Scores in the Middle School Student

By
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Submitted in partial fulfillment
of the Master of Arts Degree
in Reading Specialization

Kean College of New Jersey

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Abstract

The purpose of this study was to determine the relationship between life stress and reading comprehension test scores on the IOWA test of Basic Skills.

Forty-one middle school students were surveyed as to the amount of life stress prevalent in their lives. In addition, the IOWA scores for reading comprehension were examined.

The final results indicated that life stress does have an effect on students' reading comprehension test scores.

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Many teachers, parents, and school counselors profess the belief that life stress affects the performance of children on comprehension sections of standardized tests. Normative and developmental changes and non-normative life events may both represent challenges to the individual, challenges that may be experienced as growth-enhancing or as distressing and inhibiting to further growth (*Petersen and Ebata; in press*). In addition, specific simultaneous or deviantly-timed changes, particularly in combination with non-normative family changes, are related to poorer school achievement (*Petersen and Ebata, 1986, in press*). This statement reflects the belief that the family is likely to be the most salient and influential affect on adolescent outcomes.

The use of the term "Life Change Stress Factor" is taken from the work of *Bride* (1992) who viewed life events, both positive and negative, as potential stressors.

According to *Schickendanz and Forsyth* (1982), student anxiety, whether real or imagined, affects student performance. The anxiety can be changed by several techniques using relaxation. They further state that anxiety is created internally, yet students must be trained to control it.

Masuda and Holmes (1972) report that stress has a direct correlation with illness. Studies prove that life stressors cause many illnesses. Some patients experienced depression while other patients resistance to illness was lowered due to coping strategies that placed the patient's health in a risky situation.

Similarly, reports have been found that prove that social and family conflicts, as well as other stress factors in children's lives play important roles in reporting physical symptoms (*Pennebaker, 1982*). *Fend and Helmke* (1981) tested 11,000 children before and during adolescence and found that 30% of the sample demonstrated psychosomatic symptoms within the context of school-related distress. Data indicated that adolescents probably experience more physical symptoms than do young adults (*Zenz et al, 1985*). These young people's physical complaints correlated significantly with trait and test anxiety.

Scores that are obtained from the IOWA test of Basic Skills are often used for grouping gifted and talented as well as basic skills students. If children score above a certain percentile, they are considered for entrance into an advanced learning program. In the some vein, if a child falls below a percentile, he or she is placed in a basic skills classroom. Therefore, decisions that affect children's lives and future academic placement are directly related to the IOWA scores. "To the degree that achievement tests measure test skills rather than knowledge content, decisions about placement, programming, and evaluation may be incorrect" (*Scruggs, 1986*). If the presence of life stress is not found to produce low reading comprehension test scores, the validity of the IOWA will remain the same. The reading comprehension subtest of the IOWA was evaluated in a report done by the Chicago Public Schools in 1987. The focus was on: determining whether formal training increases students test-taking skills, students can generalize test wiseness strategies to improve their scores on standardized tests and increasedknowledge in how to take tests reduces students test anxiety. However, that study

found no difference in test scores when attempts were made to lower stress levels.

It can be concluded that adolescence is a critical transition period not only in relation to immediate effects but also for future consequences relating to school achievement. We, therefore, need to attend to the problems and disturbances of children in this particular age group.

Hypothesis:

To provide evidence on this topic, the following study was undertaken. For the purpose of the study, it was hypothesized that no significant correlation would be found in a comparison of stress levels as measured by middle school children and their achievement on the standardized reading comprehension test section of the IOWA Test of Basic Skills.

Procedure

The subjects in this study were forty-one middle school students attending Lincoln School in Garwood, New Jersey during the 1993-1994 school year. The students were grouped homogeneously for reading and language arts.

The students were surveyed using a Life Stress Instrument, (*Bride*, 1992). Records were examined for information regarding events such as death in the family or a move to a new school. Anecdotal records were kept in order to attain further information regarding students' daily life stressors. Every student's score differed depending on the individual's background. The higher the score the greater the stress experienced by the student during the past twelve months.

In addition to the life stress survey, reading comprehension subtests of the IOWA Test of Basic Skills were analyzed. The IOWA Test of Basic Skills was administered in April of 1993 and therefore fell within the guidelines of the twelve month time span.

In order to determine whether this particular assessment holds validity and reliability a manual was reviewed that discussed the "soundness" of the test.

The validity and reliability scores of the IOWA test were found acceptable since all the principles commonly used in the validation of test content have been applied and the tests were

made long enough to provide a sound basis for diagnosing relative strengths and weaknesses of diverse pupils and assessing changes that occur from year to year.

According to Riverside Publishing Company, the Company who prepares the test, "Effort is continually exerted to refine testing techniques and thus improve the precision and significance of pupil assessment."

The reading comprehension subtest scores were analyzed and correlated with the scores the students attained on the life stress survey.

Results

As can be seen in Table I, the mean is 97.07. This number represents life stress for this particular group of subjects. The mean of 8.35 represents the IOWA Test of Reading Comprehension for the same group. There is a correlation of .35.

The correlation of .35 suggests a low relationship between life stress and reading comprehension test scores. However, the 12.3% of commonality formed between the two variables indicates a

significant amount of correlation. There is a 2% probability of dependence between a student's life stressors and how well he achieves on the IOWA test.

Since the IOWA Test of Reading Comprehension was administered to students in grades six through eight, and the average score is above the seventh grade level, we can assume that these subjects are good readers.

As can be seen in **TABLE I**, the mean of the life stress survey is 97.07.

TABLE I

The Results of Mean, Standard Deviation and Correlation between Life Stress and Reading Comprehension Test Scores

	Mean	Standard Deviation	r
Life Stress	97.0714	36.9801	.35
IOWA Score	8.3500	1.76887	

Significance .02 level

This number on the scale of 11-1331 represents a low level of life stress for this particular group of subject during this period. The mean of 8.35 represents the IOWA Test of Reading Comprehension for the same group.

The correlation of .35 suggest a low relationship between the variables of life stress and reading comprehension test scores. There is a 12.3% of commonality between the two variables which is significant at the .02 level.

TABLE II

Rated as Most Influential in Subjects Lives as Stressful Events

1. Pressure to Succeed	Number 1 Stressor
2. Chores at Home - Responsibilities	Number 2 Stressor
3. Readjustment to school work	Number 3 Stressor
4. Change in Social and Church Activities	Number 4 Stressor

Conclusion and Implications

The data permit the rejection of the hypothesis that there would be no significant correlation between stress levels and reading achievement. Life stress does have an effect on achievement even though minor.

Stress affects every person's life at one time or another. People complain about various stress causing situations that plague their everyday existence. Doctors have attributed many physical disorders and health risks to various extraneous anxiety provoking events whether positive or negative, good or bad, life threatening or not.

Understanding and realizing that adolescence is a period of life when students undergo extreme physical changes along with emotional growth, one must consider the ramifications which influences their performance in school-related tasks.

Studies which have been reported about students in this age group allows us the opportunity to delve into the psyche of 10-14 year old students and discover how stress affects them on a daily basis.

Whether they complain of stomach problems, headaches or an inability to concentrate, there are overt clues that have led researchers to believe that academic achievement in the classroom can be negatively affected at times.

Environmental issues, dysfunctional family situations, and death of a family member, can play a major role in how children view school. Additionally, puberty and its concurrent hormonal changes complicates students' lives.

Realizing that stress can affect adolescent students on a daily basis and knowing that stress causes physical ailments in all populations, we can conclude that it can negatively affect reading scores on achievement tests.

Children in this age group need to be studied further in order to determine what other causes, events, and situations might affect their academic performance in school.

School psychologists, principals, teachers as well as parents need to be cognizant as to the ability and coping mechanisms adolescent students rely on for assistance during testing situations. In addition to the above, teachers should be made aware of the internal turbulence 10-14 year olds experience and educate themselves to possible motivational strategies that are germane to the educational climate in our schools today.

Related Research:
The Effect of Life Stress on
Reading Comprehension Test Scores

Persons who must cope with great burdens are likely to sicken. Even the word disease links illness to other problems. Disease originally meant a lack of ease, not just illness. *Wolf, Holmes and colleagues* (1990) found evidence that life events help contribute to many diseases including colds. In their study, 5,000 people were questioned about life events that preceded illnesses. They reported a wide range of events - death of a spouse, change of a job, divorce and other factors.

They compared American scale scores with ratings by a sample of Japanese and they found family structure differences. The American family tends to be an isolated grouping of one or two parents with children. The Japanese family is part of a larger family circle. Americans rank an addition of a family member in 13th place. The Japanese marked it only 23rd. In the same study, they asked young hospital physicians at the University of Washington to report that life events and all major health changes for the past ten years. Perhaps the most important factor is that the number of life-change units increases as the connection between life crises and illness become more certain. Scientists who did these studies did not do them to discover causes of illnesses or diseases. The fact found by these studies is that although the reported illnesses do have their own special causes something else helps cause them. That something is not a germ. The research showed that human beings do indeed get sick when they have to cope with many of the events of normal life.

A transition is a short term life change characterized by a sharp discontinuity with what has occurred. Some of these transitions are job changes, marriage, birth, divorce, death and relocation. Some transitions can be positive experiences such as vacations. They can be voluntary or involuntary. There are developmental changes -- growing from childhood into adolescence is one example. *Kobassa* (1979), introduced the issue of self-responsibility to the study of life stressors. He indicated that people who view themselves as being in control of their lives, are among what he calls "hardy copers". They know what they want and who they are. Their life event is considered as another hurdle to approach along the road of life. They take responsibility for their own actions.

Lazarus and Folkman (1984), in a follow-up study said that learning how to cope with life changes can be a difficult process for many people. It is self-initiated problem solving. Skillful "copers" are capable of appraising possible dangers in the change event and can then choose among certain causes of action.

According to *Brammer* (1992), it is of the utmost importance to establish where people are in their life transition process. Even positive events can produce stress and require support.

When viewing life stressors in regard to adolescence, *Johnson and Kottman* (1992) found that children in this age group undergo developmental changes which are influenced by physical and emotional factors. A further study by *Ames et. al* (1988) describes middle school children as undergoing a period of rapid emotional and cognitive growth. In addition, there is an integration of their personalities. They try to win others approval. As they approach the age of thirteen, *Ames et. al.* (1988), *Gessell et. al.* (1956), *Kottman* (1990) and *Johnson* (1990), there begins a period of introspection which unfolds into self-assurance and outgoing friendliness at fourteen.

Johnson and Kottman (1992) further expand by pointing out that intellectual development enables students of 13-14 years of age to see both sides of an issue. They have greater verbal comprehension and enjoy their ability to express themselves in new ways. Enthusiasm sometimes causes them to get carried away. They have an increased interest in observing others and to determine how they compare with others. Therefore, personality and achievement tests are of interest to them. Intellectual growth, verbal fluency and an ability to reason encourages a line of activity that permits these children to discuss, argue and compare issues. Classroom activities that center on providing information and encouraging discussions are very popular. Thirteen year olds enjoy school work more than they did previously. Reading and writing are favorite subjects.

Girls of this age are undergoing physical development. Many start puberty around eleven years of age. Their own physical changes, as well as their friends, is a subject of concern. Most girls' bodies have developed by the age of fourteen. Though many boys still look like little boys, it is usually a transition year for them. The fourteenth year is a period of rapid growth, a change from adolescent fat to masculine muscles. The varied physical developments during these years demonstrated that growth and maturity is not a progressive continuum experienced similarly by all individuals.

Keeping in mind how the middle school child undergoes different transitions, physical, emotional and intellectual, it is not surprising that these changes would affect any concerns associated with school. There is a particular lack of work done with children and adolescents when describing how everyday stressors affect schooling. However, with respect to everyday stressors, adolescents realize that expectation for behavior held by parents, teachers, and school administrators can be in conflict with their attitudes and capabilities. A study was conducted by *Fenzel* (1989) which dealt with school-related role strain. It included 120 sixth grade students. These subjects represented 93% of students making the transition from two elementary schools to the middle school.

Students were administered the Middle School Transition Study Questionnaire at three different times. First, it was administered in the Spring of the fifth grade (pre-transition); three weeks after the beginning of middle school (Early Transition); and again four months later (Settling In).

The MSTSQ was a collection of many instruments that assessed students' understanding of school-related role strains, self-competence, social support, self-esteem, anxiety, and certain significant life events not related to school. Grades were obtained from student report cards.

The conclusions that were drawn are that in early adolescence, individuals begin trying on many different behavioral and social hats in search of themselves. Teachers help students identify themselves as students. If early adolescents fail to feel good about themselves as students, then they will find greater satisfaction in wearing the unacceptable hats of youth who become involved with drugs or alcohol. Therefore, *Fenzel* concludes that teachers and administrators need to be aware of the developmental needs of middle school students so that the role expectations that educators hold fit the students' needs.

According to *Compas* (1989), chronic daily stressors such as those associated with poverty, as well as severe elevation of stressful circumstances associated with major life transitions have been strongly correlated with a wide array of disorders.

The research of *Compas* (1987) examined the relationship among life stressors, social support and academic adjustment among a sample of young adolescents over a two year period. Their results suggest that experiences of stress and support during early adolescence may be significant to the degree that students are able to handle the transitional challenges that are associated with this developmental period (ex. puberty and entrance into secondary school). The findings were consistent with *Compas et. al;* (1988) in which stressful events were related to increased emotional behavior problems almost one year later. This study included major and minor life events in assessing stress levels. Another finding indicated that youths who reported relatively high levels of support from school personnel were not as likely to experience major stressful events. A limitation to the study is that youth who come from a small number of disadvantaged communities. They were able to examine only a portion of the full impact environmental conditions have on developmental outcomes of children. To be exact, there was a lack of contrast between different types of communities, contexts and schools.

A study was conducted by *Parkhurst and Asher* (1992) that identified the patterns of behavior and emotional response associated with peer rejection among young adolescents. It appears that in middle school the best liked students are generally cooperative and friendly. The middle school child is also seen as experiencing greater loneliness than younger children. The

author proposed that future work might be conducted to better understand differences in the reports of elementary and middle school students. Some are due to developmental or school factors. There was much evidence based on a previous study by *Parker and Asher* (1987) to expect that aggressive-rejected students would be at risk for later problems such as school dropout, delinquency and criminality. *Baxter* (1982) found that many young adolescents may not voluntarily reveal emotions or make behavioral changes. Children in junior high may resist expressing emotions. Since they have a low tolerance for anxiety, they choose to not ask for assistance. Counseling may also not be a viable choice since children who are approaching puberty seem to demonstrate attitudes, emotions and behaviors that change from hour to hour and day to day without any apparent control.

When an adolescent experiences the loss of a loved one by death, divorce or a move to a new city, he has experienced a significant life stressor and these losses affect performance in school. Students often miss classes, exhibit rebellious behavior or become depressed. Facing loss, death and grief are realities of life and as educators we can assist students to cope with these realities so that they can deal positively with their losses.

Zenz et. al. (1985) reported that adolescents experience more physical symptoms than do young adults. Adolescents' physical complaints correlated significantly with test and trait anxiety. In other studies, *Marshall and Traue* (1989) found that children who have many physical complaints and who are highly anxious showed stronger physical reactions to school-related stress. Out of the reported sample of 180 adolescents, about 10% were found to have consistent complaint patterns which could be found even in psychophysiological measurement (*Marshall* 1987). There is also evidence in the data that gender differences develops between the ages of thirteen and fifteen and remain constant during adulthood. In the study *Zenz et. al.* (1985), the results are confirmed. There was an interaction between symptom reporting and puberty. Many complaints seemed to be transient phenomena whereas other symptoms such as exhaustion, neck and shoulder pain were stable throughout. The data revealed that adolescence plays an important role in the self-reporting of physical complaints. It may be that rapid body changes increases attention to the body leading to an increase of self-monitoring.

In view of the fact that middle school students undergo developmental changes both physically and emotionally, and that factors or life stressors are a part of each person's daily existence, further discussions will follow on the possible impact of these life events on the academic achievement of children in this age group.

A study by *Shinn* (1978) compared the academic achievement of twenty-one students from single-parent families to that of twenty-one students from intact nuclear families. Academic achievement was the most commonly used measure in students relating father absence and cognitive functioning.

In two studies, *Blanchard and Beller* (1971) and *Hammond* (1979) significantly lower scores on standardized achievement tests were found among father-absent elementary school children than among children living with two parents. The effect of father absence on school achievement scores was found to vary with type and onset of separation. Divorce and desertion were associated with deficits most significantly when father absence began during the first two years of life. Death, divorce, and desertion all correlated significantly with decrement in the achievement test scores of children. Compared to intact families, studies have shown that the intellectual achievement of children from single-parent families is lower on measures of school performance and on standardized tests of intelligence and achievement. Additionally, in comparison to their peers from two-parent families, children of single-parents have been found to have lower self-esteem and lower intrinsic motivation to be more anxious and to exhibit a higher degree of rebelliousness.

A study was reported by *Levine* (1983) to compare home activities and achievement in school. According to his review, what a child experiences when not in school is in part determined

by the structure of his or her family. If we were to compare the out of school experience of a typical child today to that of a child the same age years ago, you would see that today's child would probably have a working mother.

Based on *Elders* (1974) research of the Depression during the 30's, we see that paternal unemployment can have negative effects on a child's performance. Survey data demonstrates that family characteristics and school achievement are strongly related. Children from advantaged homes enter school with more skills than their peers. Children learn at home prior to school entry, after school, on weekends and over the summer months. Subsequently, much of the socio-economic related differences in student achievement is due to differential learning and losses at home (*Heyns* 1973). However, there is little evidence that maternal employment negatively affects school achievement while studies support that what children do alone or with their parents after school is an important predictor of achievement.

According to *Cook* (1982), crises of a more dangerous nature occurs to students who we come in contact with on a daily basis and that reading is the affected area. Some of the crises are death, divorce, moving from place to place, hospitalization, emotional or sexual abuse. An interview was conducted with 300 students from grades 2-6 and 9-12. Abuse was the number one stressor. Death was found to be the second largest of the "crises

causers". When students were asked if the particular crises affected their academic performance, all responded affirmatively. One hundred and thirteen students felt that they never returned to their level of prior performance. Fifteen of the 9-12 group indicated that someone had died in their class while in elementary school only three felt that their teachers had helped them with the situation. Of the children in grades 2-6, some were still dealing with the crisis. Of the seventeen who were handling the crisis well, all responded that teachers and parents assisted them in handling the problem through discussions.

All of those surveyed verbalized that reading was the subject affected the most. A majority of the students indicated that they were too upset to read, or it was not interesting. Some felt that they read only to escape the problem and that their memory did not serve them well.

Similar thoughts and ideas are related to divorce, moving or hospitalization. All of these life stressors have particularly strong effects on children. *Cook* (1992) reports that educators not only need to deliver the knowledge associated with "Three R's". They must also be prepared for situations involving crisis events in children's lives. In contrast to crisis issues, several large scale studies of educational achievement have proven that extraneous factors in the home play a critical role in determining children's motivation to achieve and their performance

in school (*Ashby et. al.* 1985, *Brown* 1987, *Castelda and Wagner* 1990, *Gibbons* 1984). In relation to social class, it was found that home factors outweigh school factors in relation to school achievement. Middle class socio-economic status parents have high expectations for their children than lower class parents.

Dreikurs (1954), *Gentile and McMillan* (1981) state that skills are important to reading, but social and emotional adjustments determine how much a student brings to and grasps from the reading experience. According to *Lamb* (1985), standardized test results usually fail to tell what students are capable of doing. However, successful readers are more flexible in their response to tasks. In sum, they are more relaxed while reading. *Lamb* felt that children who are competent readers are liked by their peers. They are encouraged by their parents and teachers and are urged to succeed. On the other hand, poor readers face many problems. They see reading as a threatening experience and frequently exhibit stress while reading (*Laurita* 1985).

In 1971, Maxwell found that children who have severe reading difficulties have emotional problems resulting from failure. However, the opposite is also credible, (*Gentile and McMillan* 1984). Emotional problems may result in reading problems. Children bring so much upheaval to the reading situation, they can't receive information even in the best of circumstances. Feelings play a very important role in determining children's motivation

for reading. *Gentile* believes, "that in their zeal to develop more efficient instructional strategies, educators neglect the psychological significance of stress in the learning situation."

Athey (1985) hypothesized that good readers are relatively free from anxiety and neurotic manifestations while poor readers exhibit more symptoms of maladjustment especially in school.

Elkind (1981) observed a rising state of depression among school age children. In the study of children whose parents have recently divorced, *Kelly and Wullerstein* (1976) found psychological and physiological problems that arise from depression. When school age children are depressed, it may interfere with their ability to read. When they experience failure in reading, they have added negative feelings of self-worth and increased feelings of depression (*Lamb* 1985).

Spache (1976) cites 24 studies relating emotional problems and reading disabilities to depression, aggression, anxiety, defensiveness and acting out behaviors. According to *Cannon* (1915), and *Selye* (1956) behaviors can be considered fight or flight stress reactions to reading when reading is seen as a threatening task.

Some theories allude to how stress reactions affect reading performance. *Selye* (1956) is an important work to review because he first points out that children can be stressed by life events that are usually thought of as positive such as an award or spe

cial achievement. His emphasis is on the adaptation that the child must make. Other significant life events declared as stressful by *Selye* are a move to a new location and illness in a family. According to *Selye*, the body does not know the difference between stress that is physical and stress that is emotional.

Skinner (1972) believes that behavior is a product of conditioning. When we apply this theory to reading, teachers affect the probability of students responses through the way he or she interacts with the student. The student chooses which direction to take depending on the consequences established by the teachers. According to *Rotter* (1966), a student who feels that he or she is not in control and cannot affect the outcome of a situation, will not be successful. This is a characteristic of a poor reader.

Family problems contributed to emotional disturbances that resulted in reading problems in 54% of the children surveyed by *Robinson* (1939).

Blanchard (1936) revealed a relationship between emotional tensions and failure to perform well in reading. *Missildine* (1946) encouraged researchers to investigate the relationship. He investigated thirty case histories of children under psychiatric care. Twenty of these children had mothers who were aggressive, perfectionists or overtly hostile toward them. The

mothers described their children as "happy-go-lucky", restless and afraid of the dark. They also said that punishment had little effect on their children. *Missildine* (1946) included that reading disability is a symptom of emotional problems in many children who have reading problems.

Other research points to the premise that teachers are under pressure to increase students' standardized reading achievement test scores. A study by *Deci et. al* (1982) demonstrates that stress produced by this pressure makes teachers more controlling than they should be.

Williams (1992) concluded that when teachers and administrators are dealing with issues such as performance and district test scores, many students react in a counterproductive manner and the opposite of what educators would like to see occurs.

Test anxiety and self-concept are two variables affecting academic achievement (*Tyron* 1980). *Deffenbacher, Sarason and Stoops* (1978) have indicated that negative self-statements may be most critical in influencing school achievements. High anxious students produce more negative statements which in turn influence academic achievement (*Hammermaster* 1989).

In contrast to the above, *Galassi, Frierson and Sharer* (1981) found no correlation between negative self-statement for either high or low anxious persons and their test performance. The negative thoughts of high anxious students tend to focus on

the testing situation rather than on the person. Recently, *Wilhams* (1991) has proposed that although test anxiety and self-concept are correlated with adolescent achievement, their contributions are independent.

Many of the studies that have compared achievement across subject areas with differences in test anxiety have yielded mixed results.

Similarly, different areas of self-concept might differentially have an effect on student achievement. *Byrne* (1988) relates that the relationship between self-concept and academic achievement is dependent upon the self-concept facet in question. In the *Shavelson et. al.* (1976) model, self-concept is hierarchically-ordered, with general self-concept at the top, moving to self-concept in academic and non-academic areas, leading to specific sub-areas of self-concept such as reading. Although *Nobel and McNobb* (1988) reported that motivation and other variables, have been related to student achievement scores, researchers looking to find patterns of student achievement across different self-concept levels have used the academic self-concept sub-areas.

The result of the study indicates that test anxiety and self-concept appears to have an ever-present effect upon all levels. This study supports *Brides* (1992) premise that stress is cumulative and tension tends to build over time. *Coleman* (1989)

has shown that the early adolescents' adjustment during the transition to junior high school is most problematic for those students who simultaneously go through other physical changes or social demands. For certain adolescents in *Eccles* (1993) study, the transition to junior high school occurred at the same time that their parents were coping with insecurities at their workplace. The result suggests that developmental difficulties associated with school transition may be exacerbated under these conditions.

Therefore, one can conclude that adolescence is a period of time in a young person's life when turbulence or change can and usually does exhibit negative effects on school performance. Crises, whether involving parents or the adolescent himself, can be viewed as an impeding factor to achievement. When middle school students feel good about themselves, ie., they possess self-esteem, they are more likely to perform well on achievement tests and in general have less emotional problems. Teachers and administrators need to be aware of the physical, emotional and academic changes students of this age group experience so that we can be more "in tune" to the different behaviors they exhibit in school. Much research still needs to be done in the area of adolescence since problems which arise during this fragile time of life can have long-term ramifications for these young people.

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Appendix

THE LIFE CHANGE SCALE AGES 6 TO 17

SCORE YOURSELF ON THE LIFE CHANGE SCALE

WHAT HAPPENED TO YOU IN THE PAST 12 MONTHS?

Event Rank	Event Value	Happened	Your Score	Life Event
1	100			Death of Parent
2	73			Divorce Between Parents
3	65			Separation from Parents of Marital Violence
4	63			Being the Victim of a Violent Crime
5	63			Death of a Close Family Member
6	53			Personal Injury or Illness
7	50			Parent Remarries or Initiation of Important Relationship
8	47			Extended Unemployment of One or Both Parents
9	45			Marital Reconciliation Between Parents
10	45			Retirement of Parent
11	44			Change in Health of Family Member
12	40			Pregnancy in the Family
13	39			Gain of New Family Member in Household
14	39			Readjustment in Schoolwork
15	38			Change in Financial State of Family
16	37			Death of Close Friend
17	36			Change to Different School
18	35			Change in Number of Arguments with Parents
19	31			Debt of $50.00 or More Owed to Friends
				Inability to Pay Bills - Family
20	29			Change in Responsibilities / Chores at Home
21	29			Brothers or Sisters Leaving Home
22	29			Trouble with Neighbors
23	29			Outstanding Personal Achievement - Awards
24	26			Mother Begins or Stops Work
25	26			Meeting your Intellectual Goals
				Pressure to Succeed
26	25			Change in Living Conditions - Neighborhood
27	24			Revision of Personal Habits
28	23			Trouble with Teachers
29	20			Change in Work Hours or Conditions / Yourself
30	20			Change in Residence - Moving
31	20			Change in Friends
32	19			Change in Recreation
33	19			Change in Church Activities
34	18			Change in Social Activities
35	17			Buying a Car
36	15			Change in Number of Family Get-Togethers
37	15			Change in Eating Habits
38	13			Vacation
39	12			Christmas
40	11			Minor Violations of the Law

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